

CLAIMS

What is claimed is:

1. A burst disk assembly for use in a pressurized gas system for venting pressurized gas from the system in the event that the gas exceeds a predetermined pressure, comprising:

a body having a plug region, a transition region adjacent and contiguous with the plug region and a venting region adjacent and contiguous with the intermediate region, the plug region defining an end rim and having an open cross-section, the transition region having an open cross-section that is less than the open cross-section of the plug region, the plug region and the transition region defining a radial wall therebetween having a flat face, the venting region have an open cross-section that is less than the open cross-section of the intermediate region;

a plug having a tapered cylindrical shape having a minimum cross-section that is less than the body plug region open cross-section and a maximum cross-section that is greater than the body plug region open cross-section, the plug having a through bore having a diameter less than the open cross-section of the intermediate region, the plug defining, at an end adjacent the minimum cross-section, a disk face; and

a frangible disk configured for placement in the plug region and being sandwiched between the plug disk face and the body radial wall.

2. The burst disk assembly in accordance with claim 1 where the body plug region has a depth defined between the end rim and the radial wall and wherein the plug has a length that is greater than the depth of the body plug region.

3. The burst disk assembly in accordance with claim 1 wherein the plug has a bearing face opposite the disk face and wherein the bearing face has an arcuate profile.

4. The burst disk assembly in accordance with claim 1 wherein the plug region, the intermediate region and the venting region are coaxial.

5. The burst disk assembly in accordance with claim 1 wherein the plug region and the intermediate region are coaxial.
6. The burst disk assembly in accordance with claim 5 wherein the venting region is transverse to the plug region and the intermediate region.
7. The burst disk assembly in accordance with claim 1 including a thread formed on an outer surface of the body.
8. The burst disk assembly in accordance with claim 1 wherein the plug region, the intermediate region and the venting region are each formed having a constant open cross-section.
9. The burst disk assembly in accordance with claim 1 wherein the tapered cylindrical shape of the plug defines an angle of taper of about 1 degree to about 5 degrees.
10. The burst disk assembly in accordance with claim 9 wherein the angle of taper is about 2 degrees.